

ABSTRACT:

A sensor and method of making the same for implantation in a body that includes a substrate with notches cut in the substrate to form a necked down region in the substrate; and at least one sensor electrode formed from one or more conductive layers. Preferably, the thickness 5 of the substrate ranges from approximately  $25\mu$  to  $350\mu$ , but the thickness of the substrate can range from  $5\mu$  to  $750\mu$ . The sensor may be incorporated in to a sensor assembly includes a slotted needle having a slot. The notches creating the necked down region allow the substrate to slide into the slotted needle, which has the slot narrow enough to permit passage of the necked down region. However, a non-necked down region of the substrate is prevented from 10 pulling out of the slotted needle through the slot. The slot of the slotted needle may also permit the necked down region of the substrate to slide down the slot.